

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 7252E	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/002574	International filing date (day/month/year) 25 août 2003 (25.08.2003)	Priority date (day/month/year) 06 septembre 2002 (06.09.2002)
International Patent Classification (IPC) or national classification and IPC C13K 5/00, A23C 9/142, 9/146, C13D 3/14		
Applicant APPLEXION		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 31 mars 2004 (31.03.2004)	Date of completion of this report 15 December 2004 (15.12.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/002574

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☒ the description:
 pages _____ 1-6 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages _____ 1-10 _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	2-10	YES
	Claims	1	NO
Inventive step (IS)	Claims		YES
	Claims	1-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations

1. The present report makes reference to the following search report citations; the same numbering will be used throughout the procedure;

D1: WO 99/04903 A (HOURIGAN JAMES ARTHUR; COMMW SCIENT IND RES ORG (AU)); DAIRY RES &) 4 February 1999 (1999-02-04)

D2: WO 95/30482 A (VIDAUBANAISE INGENIERIE; NOEL ROLAND (FR)) 16 November 1995 (1995-11-16)

1. Document D1, which is considered to represent the prior art closest to the subject matter of claim 1, describes a process for producing lactose from lacto-serum. (A) In order to produce polyvalent ion-depleted lactoserum, polyvalent ions are replaced by monovalent ions (Ca++ and Mg++ cations by Na+ and K+ cations (and also OH- anions)). (B) In order to produce crystallised lactose and monovalent cation-enriched mother liquor, lacto-serum is crystallised. Separation with an ion exchanger and regeneration of resins with mother liquor or raffinate are carried out (claims 1, 2, 9, 13 and 14; examples 1 and 2; page 2, line 23 - page 3, lines 17 and 29-31; page 4, line 25 - page 5, line 18).

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Document D2 relates to a process for producing lacto-serum (in order to obtain polyvalent cation-depleted lacto-serum, polyvalent cations and anions are simultaneously replaced by monovalent protons and anions) (claims 1, 3 and 6-8).

The features of claim 1 (replacement of polyvalent cations by monovalent cations (D1) and of polyvalent anions by monovalent anions (D2)) have already been used for the same purpose in documents D1 and D2. It would be obvious for a person skilled in the art to apply these features, to like effect. Consequently, the subject matter of claim 1 does not involve an inventive step (PCT Article 33(3)).

Dependent claims 2-10 do not contain any features which, in combination with the features of any claim to which they refer, define subject matter which could meet the PCT inventive step requirements, for the following reasons:

The features of dependent claims 2-10 have already been used for the same purpose in D1 and D2. It would be obvious for a person skilled in the art to apply these features, to like effect. Consequently, the subject matter of claims 2-10 does not involve an inventive step (PCT Article 33(3)).

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